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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
CHUNG, EUN HEE	

ART UNIT	PAPER NUMBER
2123	

DATE MAILED: 10/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/511,033	MONIN ET AL.	
	Examiner	Art Unit	
	Eun H. Chung	2123	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 October 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *11-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *11-20* is/are rejected.

7)☒ Claim(s) *11-20* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *13 October 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *03/14/2005*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 11-20 are presented for examination.

Information Disclosure Statement

2. The information disclosure statement filed 03/14/2005 is being considered by the examiner. However, the reference AD has not been considered because the translation was not submitted.

Claim Objections

3. Claims 11-20 are objected to because of the following informalities:

As per claim 11, the phrase "the execution flows" in lines 9 and 11 would be better as "the execution flow" to avoid any possible antecedent issues.

As per claim 11, the word "it" in line 9 renders indefinite because it is unclear what it refers.

As per claim 15, the phrase "the execution flows" in line 2 would be better as "the execution flow" and "the request groups" would be better as "the request group" to avoid any possible antecedent issues.

As per claim 18, the phrase "the execution flows" in lines 18 would be better as "the execution flow" to avoid any possible antecedent issues.

As per claims 12-20, the word "A" in line 1 would be better as "The".

Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 11-17 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by El-Sayed et al. (Automated Performance Modeling from Scenarios and SDL designs of Distributed Systems).

El-Sayed et al. discloses (Claim 11) a process for generating a performance model from a functional model for a system (Abstract) including a plurality of distributed hardware (Fig. 1, Configuration Information) and software entities (Fig. 1 Scenario) that engage to provide a service to at least one user (Fig. 1), the process comprising:

distributing representative system requests in a finite number of groups and identifying (Fig. 2, Chapter 2), for each request group, a corresponding execution flow, the distributing of the requests being determined by a service being called upon and by characteristics of customer specific behavior (Fig. 2, Chapter 2), and the execution flow for each request group corresponding to a software entity execution linking, in sequence and/or in parallel, induced by a group request (Fig. 1-3, Second column of the page 128, Chapters 2 and 3);

formalizing the execution flows using a notation making it possible to highlight causal relationships between different software entities of the system that are involved in

the execution flows and information characterizing the system's resource consumption (Fig. 1-5, Chapter 3);

developing an intermediate model that additionally comprises formalized execution flows, a resource specification that specifies physical hardware of the system, and an environment specification that represents user behavior (Fig. 1-5, Chapter 3-4); and

automating conversion of the developed intermediate model into a performance model (Fig. 6, Chapter 5);

(Claim 12) wherein the performance model derived from the developed intermediate model is dedicated to pre-existing software simulators using queuing network techniques (Fig. 1, Chapter 3);

(Claim 13) wherein the distributing the requests in a finite number of request groups is determined by the service being called upon, and by characteristics of the customer specific behavior that affect a way in which the service being called upon is delivered (Fig. 4-6, Chapter 3);

(Claim 14) wherein the execution flow for each request group is determined by the software entity execution linking, in sequence and/or in parallel, induced by a group request (Fig. 4-6, Chapter 3);

(Claim 15) wherein topology of a queuing model derived from the conversion is wholly determined by the execution flows corresponding to the request groups (Fig. 4-5, Chapter 3);

(Claim 16) wherein derivation of a performance model dedicated to a pre-existing simulator based on queuing network techniques can be automated by adapting correspondence rules proposed (Fig. 4-5, Chapter 3-4);

(Claim 17) wherein formalism of phases is achieved using an extension of a MSC (Message Sequence Charts) formalism (Chapter 2); and

(Claim 20) wherein the intermediate model developed comprises the formalized execution flows characterizing the behavior of software entities and their interactions, at least one resource specification specifying the physical hardware, and at least one environment specification representing user behavior (Chapter 3, Second Column of page 129).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over by El-Sayed et al. (Automated Performance Modeling from Scenarios and SDL designs of Distributed Systems), in view of Alur et al. (US Patent No. 6,324,496).

El-Sayed et al. teaches most all of the instant invention as applied to claims 11-17 and 20 above.

El-Sayed et al. teaches (Claim 18) wherein the formalism of a graph of phases and execution flows with a plurality of nodes representing phases constituting the service (Fig. 5-6, Chapter 3-4); and

at least one oriented arc leading from a first node to a second node representing linking in a two-phase sequence (Fig. 5-6, Chapter 3-4);

(Claim 19) at least one node followed by plural arcs oriented in parallel (Fig. 5-6, Second column of the page 128).

El-Sayed et al. fails to teach (Claim 18) HMSC (High level Message Sequence Charts) and (Claim 19) at least one node followed by plural arcs oriented as a function of

choice of a following phase depending either on a condition external to the system, or on an internal condition related to a current status of the system.

Alur et al. teaches (Claim 18) HMSC (High level Message Sequence Charts) (Fig. 1-2, Col. 4 lines 24-67, Col. 5 lines 24-40); and

(Claim 19) at least one node followed by plural arcs oriented as a function of choice of a following phase depending either on a condition external to the system, or on an internal condition related to a current status of the system (Fig. 1-2, Col. 4 lines 24-67, Col. 5 lines 1-23).

El-Sayed et al. and Alur et al. are analogous art because they are both related to performance modeling.

Therefore, it would have been obvious to one of ordinary skill in the art of at the time the invention was made to include HMSC and the function of choice method of Alur et al., with the method of performance modeling of El-Sayed et al. because Alur et al. teaches advantages of model checking method with an efficient algorithm at a minimal price (Col. 14 lines 20-26).

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Wu disclose(s) performance modeling from software components (Performance Modeling from Software Components).

Canevet et al. discloses performance modeling with the unified modeling language and stochastic process algebras (Performance modeling with the unified modeling language and stochastic process algebras).

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eun H. Chung whose telephone number is 571-272-2164. The examiner can normally be reached on 8:30am-5:00pm Monday to Friday.
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Rodriguez can be reached on 571-272-3753. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

EHC

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10/27/06